AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Claim 1 (currently amended). A method for sharing a storage device among a plurality of computers while providing data integrity in the storage device, the method comprising the steps of:

registering a particular one of the plurality of computers with the storage device by storing in the storage device a first computer identifier associated with a reserved access type in the storage device;

detecting a failure of the registered computer; and

in response to detection of the failure, performing steps of:

de-registering the registered computer with the storage device; and

re-registering the registered computer with the storage device by storing in the storage device a second computer identifier that differs from the first computer identifier~~upon less of a knowledge of the stored identifier in the shared storage device by the registered computer, replacing the identifier for the registered computer storage in the shared~~

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~~storage device with a new identifier for the registered~~

~~computer.~~

Claim 2 (original). The method as claimed in Claim 1 wherein the registered computer is a currently registered computer.

Claim 3 (original). The method as claimed in Claim 1 wherein the registered computer is a previously registered computer.

Claim 4 (currently amended). An apparatus for sharing a storage device among a plurality of computers while providing data integrity in the storage device, the apparatus comprising:

a register routine which:

registers a computer with a storage device by storing in the storage device a first computer identifier associated with a reserved access type in the storage device; ~~and~~

upon detection of ~~loss of knowledge of the stored computer identifier in the shared device by~~ a failure of the registered computer:

de-registers the registered computer with the storage device; and

re-registers the registered computer with the storage device by storing in the storage device a second computer identifier that differs from the first computer identifier. ~~replaces the identifier for the registered computer stored in the shared storage device with a new identifier for the registered computer~~.

Claim 5 (original). An apparatus as claimed in Claim 4 wherein the registered computer is a currently registered computer.

Claim 6 (original). An apparatus as claimed in Claim 4 wherein the registered computer is a previously registered computer.

Claim 7 (currently amended). An apparatus for sharing a storage device among a plurality of computers while providing data integrity in the storage device, the apparatus comprising:

means for registering a particular one of the plurality of computers with a shared storage device by storing in the storage device a~~n~~ first identifier associated with a reserved access type for the shared storage device; ~~and~~

means for ~~upon~~ detecting~~on~~ a failure of ~~loss of knowledge of the stored identifier in the shared device by~~ the registered computer;

means, responsive to the means for detecting the failure, comprising:

means for de-registering the registered computer with the storage device; and

means for re-registering the registered computer with the storage device by storing in the storage device a second computer identifier that differs from the first computer identifier~~, means for replacing the identifier for the registered computer stored in the shared storage device with a new identifier for the registered computer~~.

Claim 8 (original). An apparatus as claimed in Claim 7 wherein the registered computer is a currently registered computer.

Claim 9 (original). An apparatus as claimed in Claim 7 wherein the registered computer is a previously registered computer.

Claim 10 (original). An apparatus as claimed in Claim 7 wherein the identifier for each computer is unique.

Claim 11 (currently amended). A computer system comprising:

a central processing unit connected to a memory bus by a system bus;

an I/O system, connected to the system bus by a bus interface; and

a routine for providing data integrity in a storage device shared by the computer system with another computer system, the routine:

registering the computer system with the shared storage device by storing in the storage device a~~s~~ first identifier associated with a reserved access type for the shared storage device; ~~and~~

detecting a failure of ~~upon loss of a knowledge of the stored identifier in the shared storage device by~~ the registered computer system; and

in response to detection of the failure:

de-registering the computer system with the storage device; and

re-registering the computer system with the storage device by storing in the storage device a second computer identifier that differs from the first computer identifier, ~~replacing the identifier for the registered computer stored in the shared storage device with a new identifier for the registered computer~~.

Claim 12 (currently amended). A computer program product for providing data integrity in a storage device shared by a plurality of computers, the computer program product comprising a computer usable medium having computer readable program code thereon, including program code which:

registers a particular one of the plurality of computers with the shared storage device by storing in the storage device a~ first identifier associated with a reserved access type for the shared storage device; and

upon ~~loss of a knowledge of the stored identifier in the shared storage device by~~detection of a failure of the registered computer:

de-registers the registered computer with the storage device; and

re-registers the registered computer with the storage device by storing in the storage device a second computer identifier that differs from the first computer identifier~,~ ~~replaces the identifier for the registered computer stored in the shared storage device with a new identifier for the registered computer~~.